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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 821,539	03/28/2003	Tsuyoshi Tanaka		4713

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EXAMINER

STAHL, MICHAEL J

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 01/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,539

Applicant(s)

TANAKA ET AL.

Examiner

Mike Stahl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 18 October 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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1. This office action is in response to the amendment filed October 18, 2002. The changes to the claims have been entered, and the proposed changes to figs. 2 and 5-7 are approved.

Claims 1-3 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Aiki et al. (US 4997243).

Aiki discloses an optical device module (figs. 1-2) comprising an optical device **15**, an optical fiber **16** having an end coupled to the device, a package **7** containing the device and the fiber, and an insertion tube **25/26** fixed through the package wall and through which the fiber extends out of the package. The device end of the fiber is offset from a fixed portion sealed within the device tube to create a bend as shown in figs. 1-2 and 13 and described at col. 6 lines 1-31. The fixed portion of the fiber may be located below the end portion, depending on the orientation in which the module is installed or depending upon an observer's viewpoint.

4. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ecker et al. (US 5155786).

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Ecker discloses an optical device module (figs. 1-4) including an optical device **80/90**, an optical fiber **23** having one end coupled to the device, a package **10**, and an insertion tube **24** fixed through a wall of the package for leading the fiber outside the package. The end portion of the fiber optically coupled to the device is offset with respect to the portion which is sealed in the insertion tube, and the fiber **23** is bent as a result (see fig. 4). The fixed portion of the fiber may be located below the end portion, depending on the orientation in which the module is installed or depending upon an observer's viewpoint. As to claim 2, the assembly includes a ring member **39** having a through hole for the fiber (figs. 2 and 3), and the ring member is inserted coaxially in the insertion tube **24** and sealed via soldering (col. 6 lines 8-13).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al. (US 6190056) in view of Aiki et al. (US 4997243, cited above).

Kwon discloses an optical device module (figs. 5A-5B) comprising an optical device **502**, an optical fiber **506** coupled to the device, a package **524/526** containing the device and the fiber, and an insertion tube **522** through the wall of the package which guides the fiber outward. Kwon further discloses a plastically deformable fixture **510** for holding a ferrule **508** (see also figs. 3A-

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4C). However, Kwon fails to disclose an offset between the device end of the fiber and the portion which is fixed in the insertion tube. Aiki et al. (as discussed above) discloses a similar optical module and teaches that it is beneficial to create a bend in the fiber by offsetting the device end of the fiber from the portion fixed in the insertion tube, so that there is slack which can accommodate thermal motion of the fixing points of the fiber. Accordingly it would have been obvious to a person skilled in the art to modify the Kwon module by offsetting the device end and the fixed portion of fiber **506** to create a slack bend as taught by Aiki in order to prevent the fiber from being overstressed due to repeated temperature changes. Therefore the Kwon module modified in this manner would satisfy the limitations of claim 3.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Response to Arguments

8. Applicant's arguments regarding the rejections of claims 1-3 are not persuasive. The newly added recitation requiring the fixed portion to be below the end portion does not distinguish over the applied art because whether or not the fixed portion of the fiber is "below"

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the end portion depends on the relative orientation of the module itself. A more accurate way of distinguishing over the applied art would be to state that the optical device is installed on the floor of the module, and that the fixed portion of the fiber is closer to the module floor than the end portion is. However, it is noted that while the applied references generally show the fixed portion being farther from the floor than the end portion, they do not appear to teach away from moving the feedthrough to an alternate arbitrary location, e.g. closer to the module floor. The present specification also does not indicate that placing the fixed portion "below" the end portion is preferred over placing the fixed portion "above" the end portion. It appears that the only requirement is that there is some offset in the vertical plane, and that the direction of offset is arbitrary. As to applicant's comment that Kwon does not disclose whether the fixture is plastically deformable, it is considered inherent that the fixture is plastically deformable at least by virtue of its material (kovar, which applicant also uses) and its shape (which is nearly identical to that of applicant's ferrule holder).

Conclusion

9. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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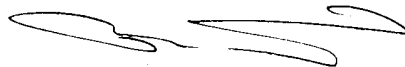
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 5727105 discloses a module which provides for bending a fiber between the feedthrough and the fiber end which couples to an optical device.

11. Any inquiry concerning this communication should be directed to Mike Stahl at (703) 305-1520. Official communications eligible for submission by facsimile may be faxed to (703) 308-7724 or (703) 308-7722. Inquiries of a general or clerical nature (e.g., a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at (703) 308-0956 or to the technical support staff supervisor at (703) 308-3072.

MJS
Michael J. Stahl
Patent Examiner
Art Unit 2874



January 18, 2003